



ALAMEDA COUNTY
CONGESTION MANAGEMENT AGENCY

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Memorandum

*March 3, 2009
Agenda Item 3.4.1*

Date: February 24, 2009
To: ACTAC
From: Diane Stark, Senior Transportation Planner
Subject: 2007-2008 Performance Report: State of Transportation in Alameda County

Action Requested

ACTAC is requested to recommend that the Board approve the 2007-08 Performance Report: State of Transportation in Alameda County. The report provides annual data updating the status of how well the County's roadway and transit systems and bicycle facilities are performing. The Executive Summary is attached. The report will be posted on the CMA's website before the meeting. Hard copies will be available at the meeting.

Next Steps

The final draft, along with the Mobility Monitor, will be forwarded to the Board at their March meeting for consideration.

Discussion

The 12th draft Performance Report includes an annual report of the status of how well Alameda County's roadways, transit, bicycle and pedestrian facilities are performing. Performance of a roadway is based on level of service, average speed/travel time, congestion levels, duration of congestion, maintenance, and accidents. Performance of the transit system is based on routing, frequency, coordination, ridership and maintenance. For the bicycle facilities, performance is based on progress towards completion of high priority projects in the Countywide Bicycle Plan. Because no performance measures have been established for the Pedestrian Plan yet, an overview of progress made on implementing the Countywide Pedestrian Plan is provided.

Some of the notable findings of the report follow:

Highway Congestion:

The following data, published by MTC in 2008, reflects congestion conditions in 2007.

- Interstate 80 in the morning peak continues to retain its rank as the most congested corridor in Alameda County and the Bay Area Region. In total, segments of the I-80 Corridor held three spots on the Top 10 Bay Area Traffic Hot Spots in 2007.

- I-580 continues to be the second most congested corridor in the county by holding 2nd and 3rd place in the top 10 congested locations in the County. The vehicle hours of delay on eastbound I-580 in the afternoon increased by 10% in 2007 compared to 2006.
- Of the Top-10 congested corridors in Alameda,
 - congestion on I-80 accounts for 38% of Vehicle Hours of Delay (VHD) (this includes congestion outside Alameda County),
 - I-580 accounts for 28% of VHD.
- The largest increase in duration of congestion was on eastbound I-80 from Treasure Island to Powell Street in Emeryville in the afternoon peak period, which was congested for two hours and 50 minutes longer compared to 2006, a shift from nearly four hours to six hours 40 minutes.
- On westbound I-580 in the morning, although duration of congestion increased 45 minutes compared to 2006, the congested segment expanded from North Flynn to west of Airway in 2006 to I-205 to Hacienda Drive.
- Of the eight comparable segments that were on both the 2006 and 2007 Top 10 congestion lists, congestion duration increased for four segments and decreased for four segments.

Level of Service (LOS) on the CMP roadways

- Speeds on both freeways and arterials increased between 2006 and 2008
- The percentage of freeways performing at LOS A, increased significantly in 2008, from 25.9 percent to 38.4 percent. 2008 showed the highest rate of freeways performing at LOS A since 2000, which was at the peak of the dot com economic contraction. The decreased levels of congestion were likely due to the downturn in the economy combined with increased gas prices.
- The percentage of freeways performing at LOS D, E and F, decreased from 45.3 percent in 2006 to 34 percent in 2008.
- In 2006, there were nine roadway segments that had operated at LOS F during the 2004 surveys but operated at an improved LOS in the 2006 surveys. In 2008, there were 15 improved LOS F segments.

O&D Pairs Travel Times

In general, both auto and transit travel times improved since 2006. Travel times range between 2 to over 5.5 times longer for transit than automobile travel for the 10 pairs studied.

Pavement Condition

The average Pavement Condition Index (PCI) for Alameda County roadways for 2007-08 was 65. This rating is approximately the same as pavement conditions reported last year. The average Alameda County PCI represents pavement conditions throughout 15 jurisdictions, which range from a four percent decline to a four percent improvement. Appendix E in the Performance Report shows PCI by jurisdiction.

Accidents

Accident rates on Alameda County freeways have generally reduced, with the exception that I-238 had a 37% increase in the number of accidents. Of all the freeways, I-980 had the largest reduction in the number of accidents, which was a 41% reduction since 2006.

Transit Update

Transit ridership in Alameda County increased less than one percent compared to the previous fiscal year. All but one transit operator showed an increase in ridership. Changes in ridership ranged from AC Transit with a 2.6 percent decrease in ridership to Capitol Corridor with a 16 percent increase in ridership. The increased ridership for most of the transit operators is likely due to the drastically increased gas prices experienced in 2008. The decrease in ridership for AC Transit may be due to the economic downturn during the same time.

Countywide Bicycle Plan

This Performance Report tracks the updated Alameda Countywide Bicycle Plan, which the Board adopted in October 2006. Of the 28 miles of High Priority bicycle facilities listed in the plan, one mile was constructed in 2007/08 and progress was made on 12 other projects, bringing them closer to being constructed when funding becomes available.

Countywide Pedestrian Plan

This Performance Report provides an overview of the Alameda Countywide Pedestrian Plan, which the Board adopted in October 2006. Although no performance measures have been adopted or monitored since the Plan was adopted, progress has been shown through implementation of the Alameda County Safe Routes to School Program and adoption of one more Pedestrian Master Plan, with five additional plans in progress.

ACTAC Recommendation

While reviewing last year's Performance Report, ACTAC recommended that this year's Performance Report include three additional performance measures: 1) capacity of transit as an indicator of transit congestion, 2) percentage of unmet needs for local streets and roads and transit, and 3) progress monitoring Community Based Transportation Plans.

1) Capacity of Transit

To measure the capacity of transit, staff contacted AC Transit and BART. AC Transit tracks systemwide load factors, but does not have countywide or more local load factors. With approximately 100 local lines that vary significantly, the systemwide load factors would not provide a meaningful way to measure capacity. AC Transit is continuing to investigate ways to measure and track capacity. Staff will continue to work with the transit districts to develop a meaningful measure of capacity and that it be included in next year's report.

2) Percentage of unmet needs for local streets and road and transit

This year's Performance Report includes a table in the appendix that shows the most recent local streets, roads and bridges shortfall in funding. This is included as a baseline for future Performance Reports. Staff will contact transit operators to determine options for measuring and monitoring unmet needs in next year's Performance Report.

3) Progress in Community Based Transportation Plans

This year's Performance Reports initiates a table that monitor the status and progress of projects funded through the Lifeline Transportation Program. The projects meet transportation gaps in low income communities.

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State of Transportation
In Alameda County
2007-2008

DRAFT PERFORMANCE REPORT

ALAMEDA COUNTY CONGESTION MANAGEMENT AGENCY

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Executive Summary

ALAMEDA COUNTY TRANSPORTATION SYSTEM

The 2007-2008 Performance Report provides information on how the transportation system is functioning in Alameda County. The report will also be used to help identify transportation improvements to be considered in Alameda County. County transportation improvements will be included in the Capital Improvement Program for the Congestion Management Program (CMP) and in future updates of Alameda County's long-range Countywide Transportation Plan.

Performance Measures

This report measures the annual performance of three modes of transportation in Alameda County: highways, transit, and the bicycle network. It also discusses countywide pedestrian access, as defined in the 2006 Countywide Pedestrian Plan. This report does not monitor the progress of countywide pedestrian access, as no performance measures have been defined yet, but it does provide a summary of progress made. Highway data is based on information collected from Caltrans and MTC. Transit data was collected from Alameda County's transit operators. Bicycle data was collected from the 15 jurisdictions in Alameda County. A summary table of the results of the performance measures for each mode is included at the end of this Executive Summary. The body of the report also includes tables with data summarizing the performance of each transportation mode. More detailed data are provided in the appendices.

Below are highlights of the report for each transportation mode. This is followed by an overview of the applied performance measures for the Alameda County transportation system in 2007-2008 (Table ES.1). For more detailed information and explanations, please refer to the complete report.

Highways

Performance on highways in Alameda County is tracked in this report using the following measures:

- Level of Service - the level of congestion on County freeways and arterial roadways
- Average Speed/Travel Time - measured in each lane during the peak period
- Origin and Destination (O&D) Pairs Travel Times -travel times between destinations
- Vehicle Hours of Delay -amount of time travelers are delayed in traffic

Highways (Cont'd.)

Measures to track how our County's roads are performing also include:

- Road Maintenance – quality of pavements throughout the County
- Accidents – the number of accidents along County freeways

Level of Service (LOS)

Alameda County CMA measures Level of Service (LOS) Monitoring in the even-numbered years. The CMP roadways were most recently monitored in spring 2008. Level of Service (LOS) is measured from A to F, with A representing no congestion and F representing the most congestion. Descriptions of LOS are included in Appendix C. Following are highlights from the 2008 LOS Monitoring Report:

- Based on the LOS monitoring performed by the CMA in spring 2008, speeds on freeways appear to have generally improved while arterials have remained stable.
- The percentage of freeways performing at LOS A, increased significantly in 2008, from 25.9 percent to 38.4 percent. 2008 showed the highest rate of freeways performing at LOS A since 2000, which was at the peak of the dot com period. The decreased levels of congestion were likely due to the downturn in the economy combined with increased gas prices.
- The percentage of freeways performing at LOS D, E and F, decreased from 45.3 percent in 2006 to 34 percent in 2008.
- In 2006, there were nine improved roadway segments that had operated at LOS F during the previous, 2004 surveys. In 2008, there were 15 improved LOS F segments compared to 2006.

Origin & Destination (O&D) Pairs, Travel Times

Since 1996, the ACCMA has compared travel times for auto and transit for ten origin/destination pairs within Alameda County. Auto and transit travel times have improved compared to the times listed in the 2006 LOS Monitoring Report. In general, auto travel time shows more improvement than transit travel since 2006. Travel times range between 2 to over 5.5 times longer for transit than automobile travel for the 10 pairs studied.

Vehicle Hours of Delay, Duration of Congestion

Since 2004, Metropolitan Transportation Commission has annually collected information on travel time for freeways in Alameda County and the Bay Area. Caltrans collected this data previously. The data is collected to identify: location of congestion; time of day that congestion occurs; and length of congestion (duration). The number of vehicle hours of delay (VHD) in comparison to previous years indicates whether congestion is increasing or decreasing. MTC's 2007 congestion data shows that congestion has increased by 8,900 VHD in Alameda County, which represents a 15% increase over the previous year. This continues the trend of increased congestion since 2003. The following are the important congestion findings from MTC's data on vehicle hours of delay in 2008:

- In 2007, congestion in Alameda County continued to account for nearly 40% of total congestion in the Bay Area. This is more than double the second most congested county, Santa Clara.
- I-80 in the morning peak retains its rank as the most congested corridor in Alameda County and the Bay Area. It holds 3 spots on the Top 10 most congested corridors list.
- I-580 continues to be the 2nd most congested corridor in the County. It holds 2nd and 3rd place in the top 10 congested locations.
- The vehicle hours of delay on eastbound I-580 in the afternoon increased by 10% in 2007 compared to 2006.
- On westbound I-580 in the morning, although duration of congestion increased 45 minutes compared to 2006, the congested segment expanded from Flynn to Airway in 2006 to I-205 to Hacienda Drive.
- The largest increase in duration of congestion was on eastbound I-80 from Treasure Island to Powell Street in Emeryville in the afternoon peak period, which was congested for nearly three hours compared to 2006, a shift from nearly four hours to six hours 40 minutes.
- Of the eight comparable segments that were on both the 2006 and 2007 Top 10 congestion lists, congestion duration increased for four segments and decreased for four segments.

Road Maintenance

MTC monitors the pavement condition of local streets by tracking the percentage of centerline miles for all roadway types in each jurisdiction from excellent to poor. They also weight the average Pavement Condition Index for the general pavement condition in the County. PCI is rated from 1 to 100, with 100 representing new roads. The average PCI for Alameda County roadways for 2007-08 was 65. This rating is approximately the same as pavement conditions reported last year. The average Alameda County PCI represents pavement conditions throughout 15 jurisdictions, which range from a four percent decline to a four percent improvement since the previous year. Appendix D in the Performance Report shows PCI by jurisdiction.

In 2007, approximately, 77 percent of all the roadways were reported to be in fair to excellent condition in Alameda County. Pavement in very poor to very poor condition represents about 23 percent of the County's roadways, which indicates a six percent increase since the previous year. Appendix D shows pavement conditions by jurisdiction in Alameda County.

Local Streets, Roads and Bridges Shortfall

This year, for the first time, the Performance Report has added a section that tracks the local streets, roads and bridges shortfall. This will be used as a baseline to compare to future years.

Accidents on County Freeways

Accident rates on Alameda County freeways have generally reduced, with the exception that I-238 had a 37% increase in the number of accidents. Of all the freeways, I-980, had the largest reduction in the number of accidents, which was a 41% reduction since 2006.

Transit

For FY 2007-2008, the average increase in ridership among Alameda County transit operators remained stable. However, this represents an average of a range from 2.8 percent decrease in ridership for AC Transit to a 16 percent increase at Capitol Corridor. AC Transit is the only operator that showed a decrease in ridership in 2007/08. The decrease of AC Transit ridership could be due to the downturn in the economy. The increase in ridership for the other transit operators could be attributed to the rise in gas prices combined with systemwide improvements implemented by the transit operators. This year, the Performance Report added a category tracking transportation projects that have been funded through the Lifeline Transportation Program. The purpose of the program is to fulfill transportation gaps for low income communities. That information is attached in Appendix I.

Bike Facility Construction

In 2006, the CMA Board adopted the amended Alameda Countywide Bicycle Plan. Of the Plan's 549-mile "Vision Network," 224 miles are constructed and existing. This represents 40% of the Bike Plan's Vision. The Plan includes a list of 28 miles of High Priority projects, which is based on projects that could be completed within four years of adoption of the Bike Plan update. In 2007, progress was made on nine additional High Priority Projects. Progress includes completing plans, environmental studies, engineering and obtaining funds for the projects, which is a prerequisite to construction of bicycle facilities. In 2008, there was one Call for Projects for funding the High Priority Projects from one of the bicycle facilities fund sources, ACTIA. Applications have been submitted but the projects have not yet been selected. Tables with details are included in the Bicycle Network section of this document.

Appendix I shows the location of the High Priority projects and transit priority zones that will be the focus of funding efforts for the next three years when the next update of the Countywide Bicycle Plan is anticipated. The High Priority Projects are listed in Table I-1 and shown in Figure I-1. This performance report monitors the implementation of the High Priority projects as well as the construction of other projects on the Countywide Bicycle Network.

Pedestrian Access

The first Countywide Pedestrian Plan was adopted by the CMA Board and ACTIA in October 2006. This No performance measures have been established yet for tracking implementation of the capital projects in the Plan. This Performance Report includes an overview of the Plan. Although there are no performance measures, the programs are moving forwarding. One example is the implementation of the Alameda County Safe Routes to Schools Program this year. Additionally, five jurisdictions are developing plans, moving the county toward the Countywide Pedestrian Plan's goal for each jurisdiction to have a pedestrian plan by 2011.

Table ES.1—Summary of Applied Performance Measures

PERFORMANCE MEASURE	OBJECTIVE OF CMP	2007-08 RESULTS	OBSERVATION
HIGHWAYS			
Level of Service (based on 2008 LOS Monitoring Report)	<ul style="list-style-type: none"> • Mobility • Air Quality 	<p>Updates in 2008, as follows:</p> <p>Freeways: LOS A increased by 12.5%. LOS D, E, & F decreased by 11.3%.</p> <p>Arterials: LOS A increased by 3.9%, LOS D & E decreased by 4%.</p>	The changes from 2006 to 2008 show freeways improving and arterials remaining steady.
Average Speed (based on 2008 LOS Monitoring Report)	<ul style="list-style-type: none"> • Mobility • Air Quality • Land Use 	<p>Updates in 2008, as follows:</p> <p>Freeways: 50.4 mph for the afternoon peak</p> <p>Freeways: 52.4 for the morning peak</p> <p>Arterials: 25.2 mph for the afternoon peak</p>	The average speed during the evening peak on freeways increased by 5.5% from 2006 to 2008, while on arterials it increased by 4.8%.
Travel Time (auto, transit and bike-- based on 2008 LOS Monitoring Report)	<ul style="list-style-type: none"> • Mobility • Air Quality • Land Use 	<p>Most recent information from 2008 follows:</p> <p>In general transit trips took 2 to 5.5 times longer than auto for the 10 pairs studied. Consistently Fremont- Pleasanton has the highest transit travel times that are over 4.5 times longer than auto.</p> <p>Bicycle trips in the northern part of the county continue to compete well with both auto and transit trips.</p>	<p>Overall auto travel time has reduced and transit times have increased since 2006.</p> <p>Most transit delay is associated with transfer between lines.</p>

PERFORMANCE MEASURE	OBJECTIVE OF CMP	2007-08 RESULTS	OBSERVATION
Duration of Congestion (based on 2007 Highway Congestion Data from MTC for Alameda County roadways)	<ul style="list-style-type: none"> Economic Air Quality 	<p>Congestion measured in 2007 showed increased congestion levels on most of the top 10 corridors; with 63,900 VHD in 2008, which is up from 55,000 VHD in 2006, an increase of 15%.</p> <p>Eastbound Interstate 80 across the bridge in the pm peak registered an increase of 16% compared with 2006. Congestion on eastbound I-580 in the afternoon increased by 10% compared to 2006.</p>	<p>Although duration of congestion increased on the top three most congested corridors in the county, the VHD decreased in those three corridors. This could be due to travelers choosing to alter their commute time combined with a downturn in the economy.</p> <p>Construction on the bridge could contribute to increases in VHD on I-80 eastbound in the pm peak.</p>
Maintenance (Local)	<ul style="list-style-type: none"> Economic 	<p>Pavement Condition:</p> <p>Excellent: 7 %</p> <p>Very Good: 25 %</p> <p>Good: 21 %</p> <p>Fair: 23 %</p> <p>Poor: 15 %</p> <p>Very Poor: 8 %</p>	<p>Percentage of roads reported to be in good or satisfactory condition changed by 1 % in the past year. This represents an average amongst the 15 jurisdictions.</p>
Accident Rates	<ul style="list-style-type: none"> Mobility Air Quality Economic 	<p>Pending information from Caltrans</p>	<p>TBD</p>

TRANSIT

PERFORMANCE MEASURE	OBJECTIVE OF CMP	2007-08 RESULTS	OBSERVATION
Ridership	<ul style="list-style-type: none"> Economic Air Quality Land Use 	Transit ridership in terms of total annual passenger boardings in Alameda County has remained stable as an average of all transit operators in the County. This consists of one decrease combined with the remaining increases in ridership.	Ridership increases are likely due to increased gas prices and systemwide improvements by the Transit Operators. Decrease in ridership for AC Transit maybe due to the downturn in the economy.
Coordination of Services	<ul style="list-style-type: none"> Mobility Air Quality 	Transfer facilities are located at BART, AMTRAK, ACE, Dublin and Livermore Transit Centers, two malls, Greyhound and ferry terminals	The greatest number of transfer opportunities is found at the BART stations.
Vehicle Maintenance	<ul style="list-style-type: none"> Air Quality 	Bus Service: Miles between mechanical road calls reduced for AC Transit and UC Transit and increased for UC Transit. Rail: Mean time between service delays remained stable for BART and increased by 46% for ACE since last year.	BART is continuing their Strategic Maintenance Program (SMP) initiative for secondary repair.
Routing	<ul style="list-style-type: none"> Mobility Air Quality Land Use 	Surface miles (directional route miles) covered by transit and service coverage increased by 3.5%, while passenger boardings increased by 2% on average.	Increased boarding's reported by transit operators are likely due to a combination of systemwide improvements by Transit Operators and increased gas prices.

PERFORMANCE MEASURE	OBJECTIVE OF CMP	2007-08 RESULTS	OBSERVATION
Frequency	<ul style="list-style-type: none"> • Mobility • Air Quality • Land Use 	AC Transit and LAVTA have been providing 24 hours a day service since December 2005. BART increased frequency from 20 to 15 minute headways in the evenings and Sunday.	Bus frequency remained relatively consistent compared to last year for all periods. Union City added a Sunday shuttle to Northern Fremont. BART increased frequency during evening and Sunday service.

BICYCLE

Completion of Countywide Bike Plan	<ul style="list-style-type: none"> • Mobility • Air Quality 	Nine High Priority projects showed progress in environmental, design and funding in 2007.	Bicycle facilities are progressing in Alameda County.
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